

IMMERSIVE MEDIA: VIRTUAL AND AUGMENTED REALITY

RESOURCE TOOLKIT FOR AMERICAN SPACES

This Resource Toolkit is designed for programming at American Spaces to make use of immersive media to more effectively promote American culture and values.



BEST PRACTICES

- **The right partner is essential.** Most American Spaces staff are not AR/VR experts. Local partners can provide advice on the local immersive media ecosystem and help run programs.
- While there is **no single technology** suitable for all American Spaces, ECA recommends the Oculus Quest 2. Survey your local environment to see which technologies are appropriate.
- Immersive media can be used **to run virtual programs** and promote interaction and community.
- Immersive media, such as 360 videos, virtual museum tours, and virtual reality experiences are great ways to **share American culture and values**.

WHY IMMERSIVE MEDIA AT AMERICAN SPACES AND HOW?

Studies have shown that immersive media such as virtual reality (VR) and augmented reality (AR) can elicit a stronger emotional response from the user. In addition, it can allow for a more rich and memorable educational experience. American Spaces should consider making use of this new technology to provide foreign audiences with a more meaningful connection to the United States.

Additionally, immersive media is expanding rapidly into fields such as design, education, health, e-commerce, professional training, and entertainment. American Spaces looking to promote entrepreneurship and innovation can run programs with local partners on immersive media design.



UNITED STATES DEPARTMENT of STATE
Bureau of Educational and Cultural Affairs

TYPES OF VR SETS

Smartphone

There are many cheap options such as Google Cardboard and Samsung Gear, in which users can insert their mobile device.

Tethered

These sets offer the most immersive experience, but require a cable connection to a powerful PC.

Standalone

Standalone VR sets are the most popular and can be used anywhere that has a fast wifi connection. We recommend the Oculus Quest 2, which costs \$299.

eShop AR/VR Collection

ONLINE COURSES

- [How does VR work?](#)
- [360 VR Video Production](#)
- [Google VR Developers](#)
- [Creating VR Apps](#)
- [Unity Technologies](#) - This gaming and virtual reality development platform has free learning modules with teacher lesson plans. Here are recommended modules:
 - [VR in Unity: Beginner](#)
 - [Intro to VR Development](#)

WEBINARS

[American Spaces Live VR and Cultural Events](#) from the U.S. Embassy to Italy



Virtual Reality Group Tours

Some American Spaces have used virtual reality to run group or classroom tours of the United States. This can be done with very basic VR sets. This [educational set](#), available on American Spaces eShop, includes smartphones that are pre-programmed with Google Expedition experiences. Participants can "visit" an American university, tourist site, historical monument, or national park.

Immersive Media Training

Courses on VR/AR development are gaining popularity at American Spaces. For example, American Center Cairo has run several successful [courses](#) in coordination with a local partner to teach participants how to create VR content. See this American Spaces Live webinar (forthcoming) for more.

Immersive Media Station

Several American Spaces provide access to AR/VR equipment in their Makerspaces to allow visitors to experience the technology with games, 360 videos, and other experiences.

Virtual Reality Meetups/Events

With the switch to moving all things virtual, new platforms are emerging to conduct virtual meetings and just hangout with friends. ECA has licensed the [Engage](#) platform available to American Spaces (see next page for more). American Space Dushanbe hosted a Halloween party using the free platform [Mozilla Hubs](#). Visitors were able to choose their avatar, walk through a haunted house, and watch videos together. This platform can be accessed by any VR headset, a mobile device, or just a computer. See this [webinar](#) from the U.S. Embassy to Italy on the possibilities of virtual reality for cultural events.

Note: These resources and technology listed in this toolkit are not exhaustive. In addition, the views expressed in the resources do not necessarily reflect those of the U.S. government. New virtual reality experiences, 360 videos, platforms, and courses are regularly coming online. Finally, not all of these resources are available on all VR devices.

EXPERIENCES

Virtual Tours of National Parks

- High quality 360 videos

Seeking Pluto's Frigid Heart -

From The New York Times with images from NASA's New Horizons spacecraft

Traveling While Black - This experience on the Oculus documents restrictions of movement for Black American

My Brother's Keeper PBS - This cinematic 360 experience tells the story of brothers on the opposite sides of the U.S. Civil War

Mayflower Reflections - Tells the story of religious persecution and the Mayflower coming to America leading to the establishment of America's democracy and discusses the Universal Declaration of Human Rights

Masterworks Journey through History - This allows users to learn about and experience Mount Rushmore and Native American cliff dwellings in Colorado

Experience Free Solo - American climber faces Yosemite's El Capitan without ropes

The Sun Ladies* - Yazidi women warriors fight extremists.

The Key* - A fantastical experience on Oculus that takes you on a journey of dreams to reveal the story of refugees.

*Not suitable for all audiences



Immersive Media Platforms

Engage

ECA has licensed the Engage educational VR platform. Engage allows up to 50 users at a time to meet in coffee shops, exhibition halls, on Mars, or even the moon. Viewers can upload videos and presentations and interact with pre-recorded content.

Google's Expeditions & Arts and Culture

Users can download the mobile apps for both these Google resources. As mentioned above, Google Expeditions allows for classroom tours to experience American cities, universities, national parks, and historical sites in VR. Here's the [full list](#) of 900 Google Expeditions. Google Arts and Culture is similar but focused on museum collections. Like Expeditions, users can insert their mobile device in a VR headset.

Mozilla Hubs

In this free and accessible platform, users can create a virtual reality room where anyone with a computer, smartphone, or VR headset can hold meetings or clubs, watch videos, or present. This can serve as a place for American Spaces visitors to simply hang out, watch videos together, or even play hide and seek. See [American Spaces Live webinar](#).

VR YouTube

One of the largest repositories of VR, 360, and 180 videos, this site has featured playlists of storytelling, travel, culture, and music. It can be accessed by any VR headset and American Spaces can upload their own 360 videos.

Virtual Museum Tours

Many American museums now have their own immersive media tours. Here are just a few examples: [Smithsonian National Museum of Natural History](#), [National Constitution Center](#), and [Museum of the American Revolution](#).

Virtual Exhibitions

American Spaces in [Bangladesh](#) have created virtual exhibitions using [Artstep](#) and [Kunstmatrix](#).

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